

In the Specification

Applicants present replacement paragraphs below indicating changes, with insertions indicated by underlining and deletions indicated by bracketing.

Please replace the paragraph beginning at page 24, line 7 with the amended paragraph/line as follows:

Moving a logical volume from a first storage system to a second storage system can be accomplished in any of numerous ways, and the present invention is not limited to any particular implementation technique. For example, the copying of a logical volume from the first storage system to the second storage system can be controlled by a host computer coupled to both storage systems, where the host computer can read the data from the first storage system and write it to the second. Alternatively, where the storage systems are intelligent storage systems and have a direct communication link between them, the direct link can be used to perform the copy, thereby leaving the host computer free to perform other actions. For example, where both of the storage systems are from the SYMMETRIX line of disk arrays, available from EMC Corporation, Hopkinton, MA, a feature called SYMMETRIX Remote Data Facility (SRDF) can be employed to copy the logical volume from the first storage system to the second storage system. After the logical volume is moved, the routine 120b then updates the mapping information to reflect the new configuration of the computer system (step 128) and allows I/O between the application layer 30 and the moved logical volume to resume (step 130) in the same manner as described above in connection with steps [132] 128 and [134] 130 in Fig. 6A.

Please replace the paragraph beginning at page 25, line 4 with the amended paragraph/line as follows:

In step 142, the routine 120c sends a message, over the Fibre Channel cloud 100, to all hosts sharing the logical volume to be moved, instructing the hosts to hold incoming I/O commands between the hosts' application layers and the logical volume to be moved (step 142). When the control agent 42 is implemented on one of the hosts, the control agent 42 may obtain the addresses of the other hosts by, for example, requesting from the storage system 3 the

addresses of all other hosts that share the logical volume to be moved. After sending such messages to the hosts, the routine 120c may wait for acknowledgment from the hosts that the request to halt I/O has been followed before the routine 120c proceeds to the next step. The routine 120c then queries all hosts to determine when their pending I/O commands to the target volume have completed (step 144). In [sep] step 146, the routine 120c then moves the logical volume. This can be done in any of numerous ways, as described above with respect to steps 126 (Fig. 6A) and [136] 132 (Fig. 6B). The routine 120c may then send messages to all hosts sharing the moved logical volume instructing them to log out, if necessary, from the port from which the logical volume was moved, and to log in, if necessary, to the port to which the logical volume was moved. The routine 120c instructs each of the hosts that shares the logical volume to update its mapping information to reflect the new configuration of the computer system (step 148), and to allow I/O between the hosts' application layers and the moved logical volume to resume (step 150).